

CDR Jon Sharpe, USN DD 21 Program PMS500TW

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# DD 21 Perspective

Expeditionary Warfare Conference

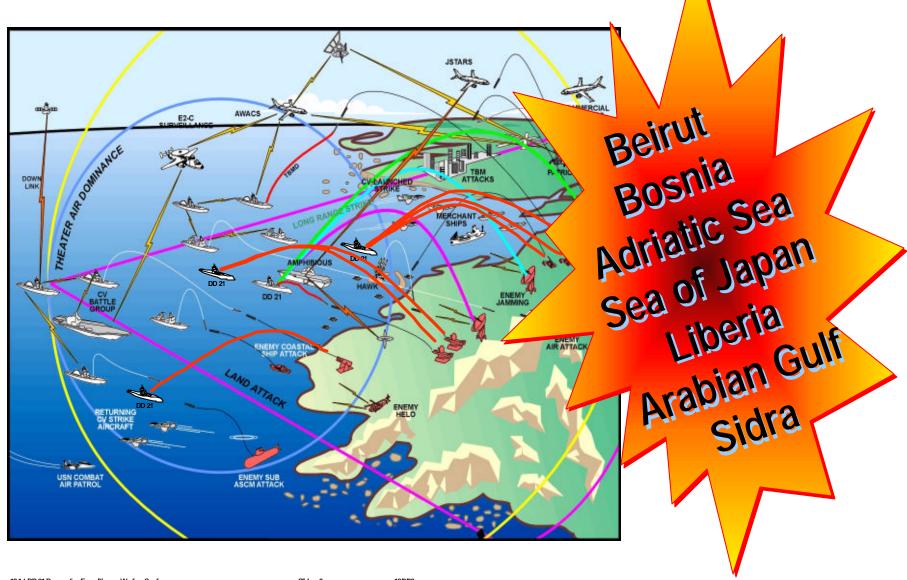
## Agenda



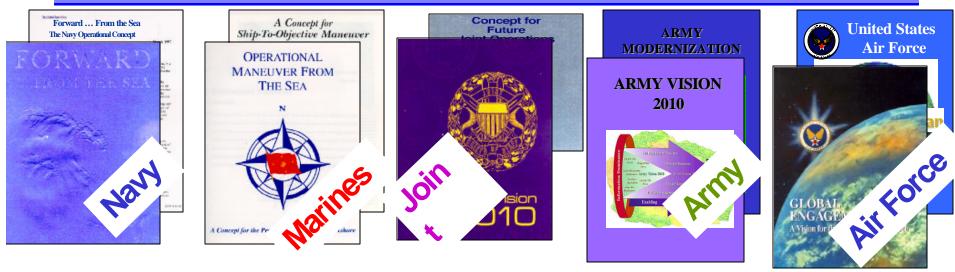
- Challenges of the Operating **Environment** 
  - DD 21 Roles in the Joint Force
  - DD 21 Design Features

#### New Operational Paradigm

**Littoral Focus** 



## New Doctrinal Paradigm



- Provide context to what the battlespace will look like in 2010
  - Assess the impact of new doctrines, concepts, threats
  - Identify what Joint Force Commanders and Army / Marine Corps forces will require from DD 21
  - Identify those systems and capabilities with which DD 21 must be interoperable

Where and how DD 21 will play in the context of the Joint Battlefield

# Tactics, Techniques and Procedures Drive Force Capability and Interoperability Requirements

#### Needed:

- Joint Doctrine
- Joint C4ISR

#### <u>Navy</u>

- Maritime Dominance
- TBMD
- Land Attack
- Information Warfare

#### Objectives:

- Prevent Fratricide
- Enhance Effectiveness

#### Air Force

- Aerospace Dominance
- TBMD
- Land Attack
- Information Warfare

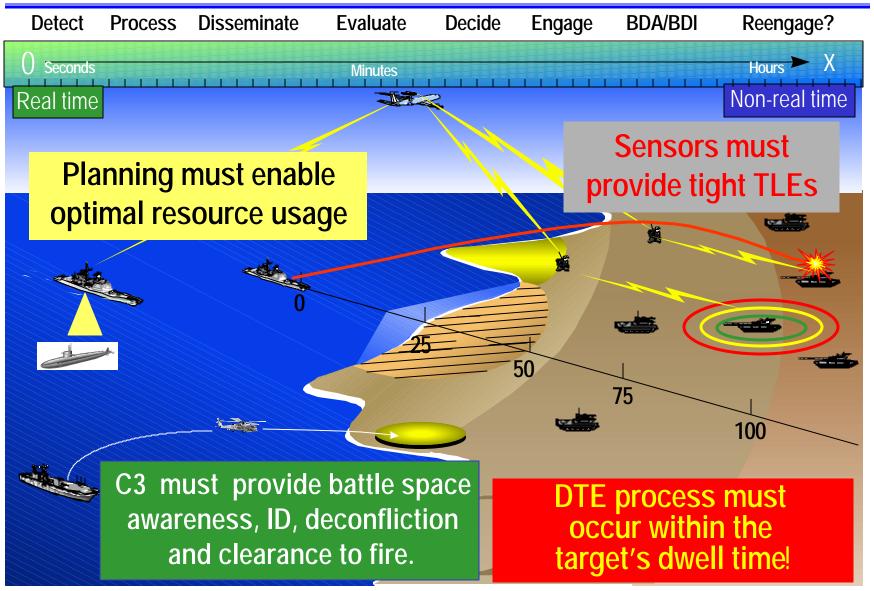
Targeting/ID/ Deconfliction

#### Army/USMC

- Land Dominance
- Fire Support
- Air Defense
- TBMD
- Information Warfare

Issue: common tasks but different processes across joint services and across mission areas

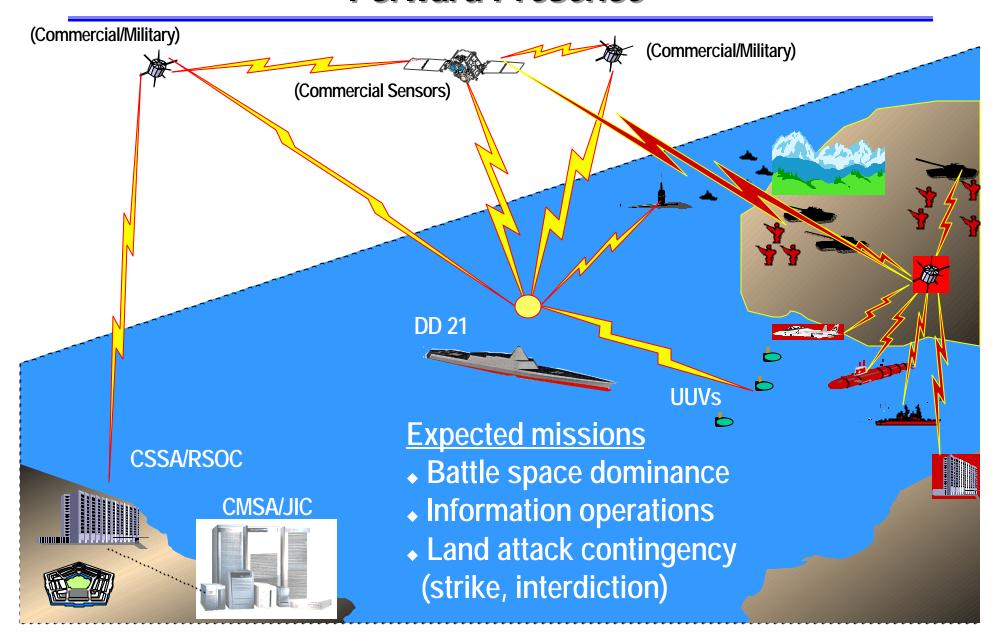
## The Detect-to-Engagement Challenge



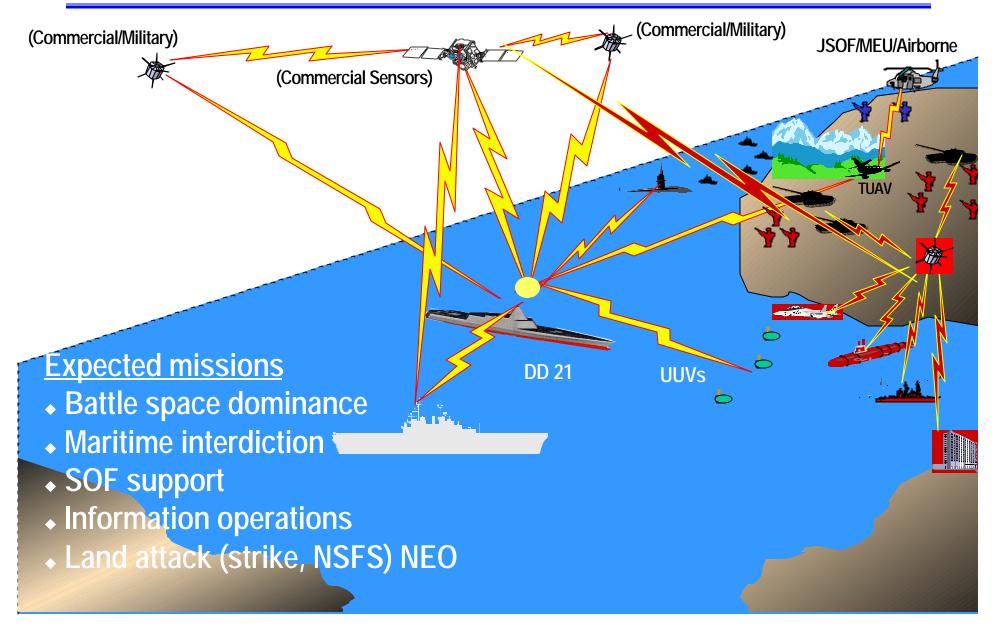
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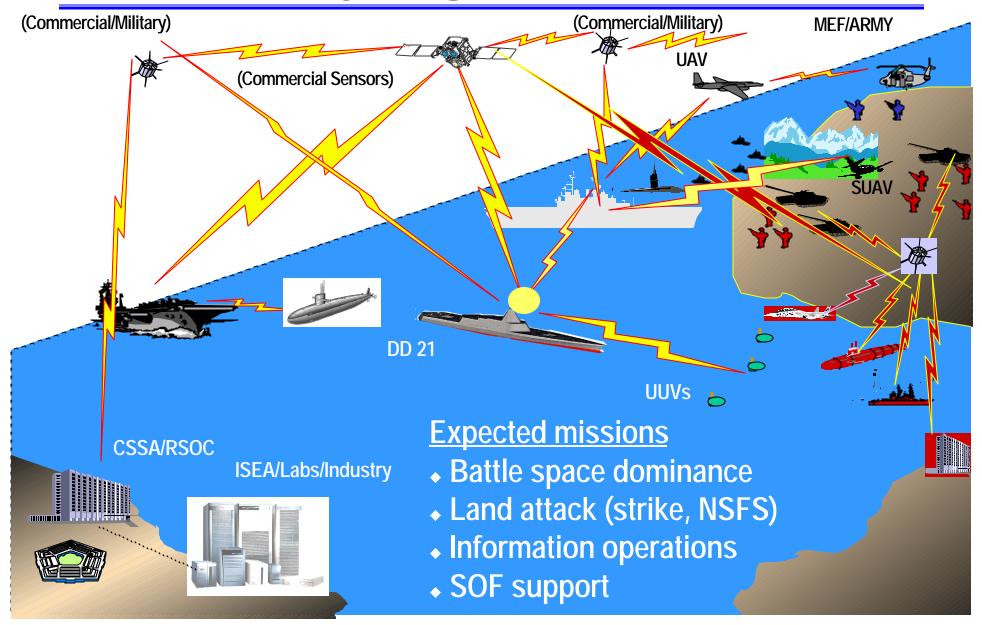
# DD 21 in the Network-Centric Battle Space Forward Presence



# DD 21 in the Network-Centric Battle Space Crisis Response/Low Intensity Conflict



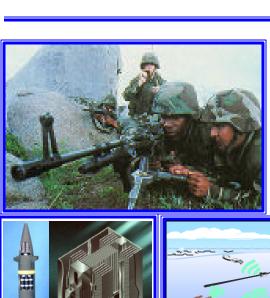
# DD 21 in the Network-Centric Battle Space Major Regional Conflict

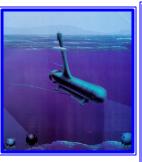


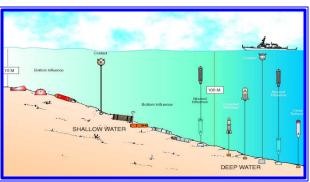
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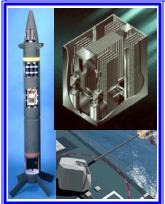
# How is DD 21 Unique?





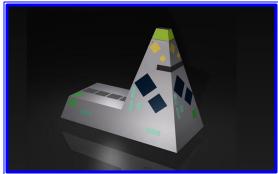






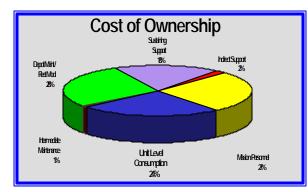












13.1.6 DD 21 Perspective Expeditionary Warfare Conference

Slide 12

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#### **Advanced Munitions**

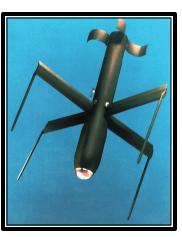


Extended Range Guided Munition





XM 982 Program
ER-DPIC M
SADARM
UNITARY



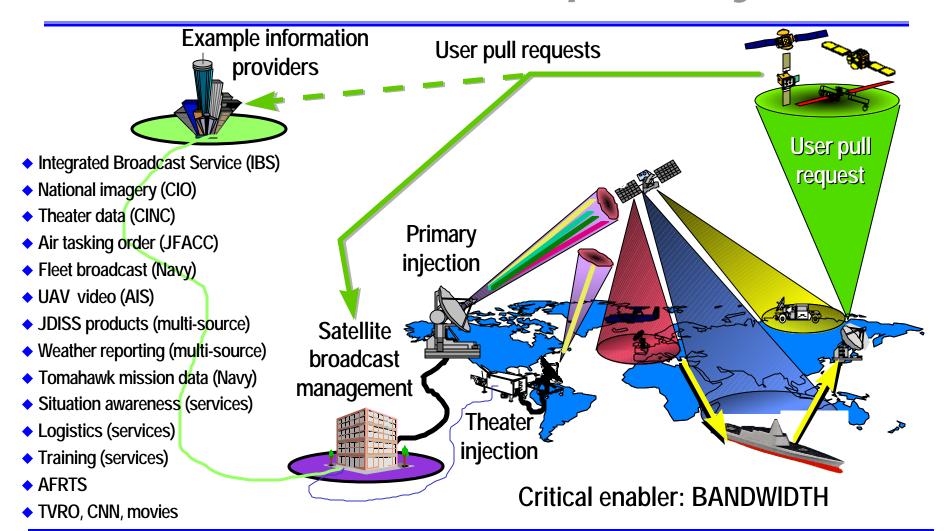
Brilliant Anti-Tank Munition



**Support Munition** 

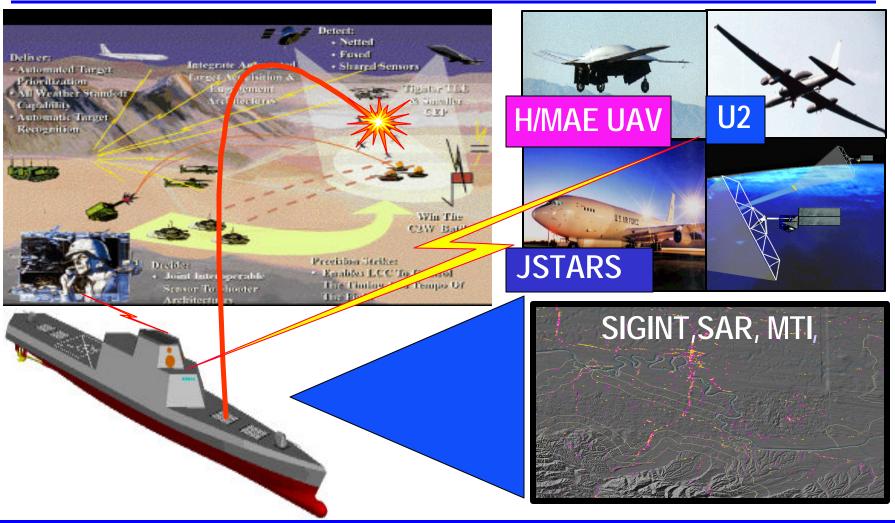
**Forward Air** 

# Information Superiority



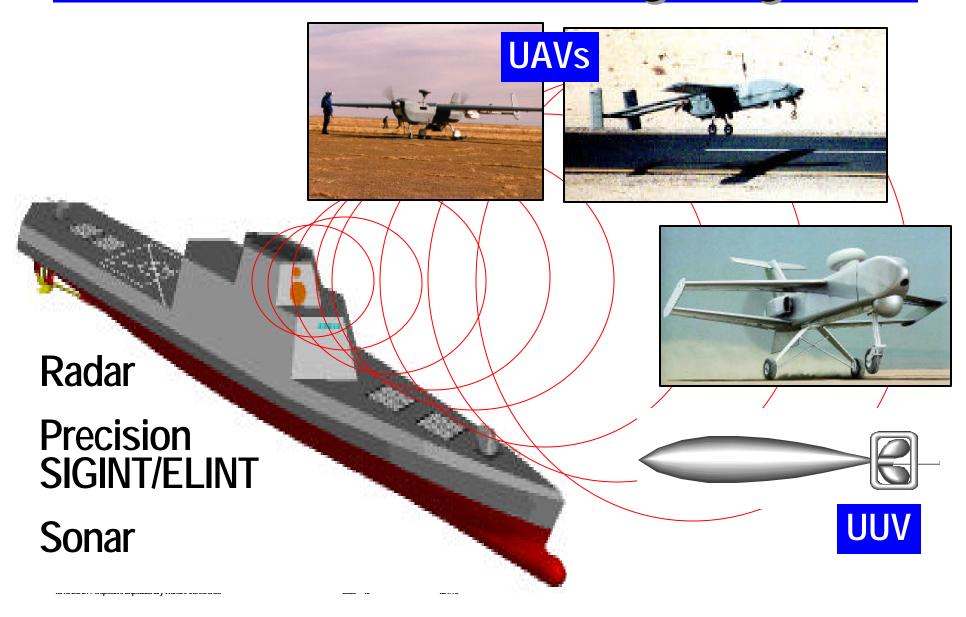
Network-centric infrastructure (DII) allows synergy with global assets to support all DD 21 missions.

#### **Information Superiority**

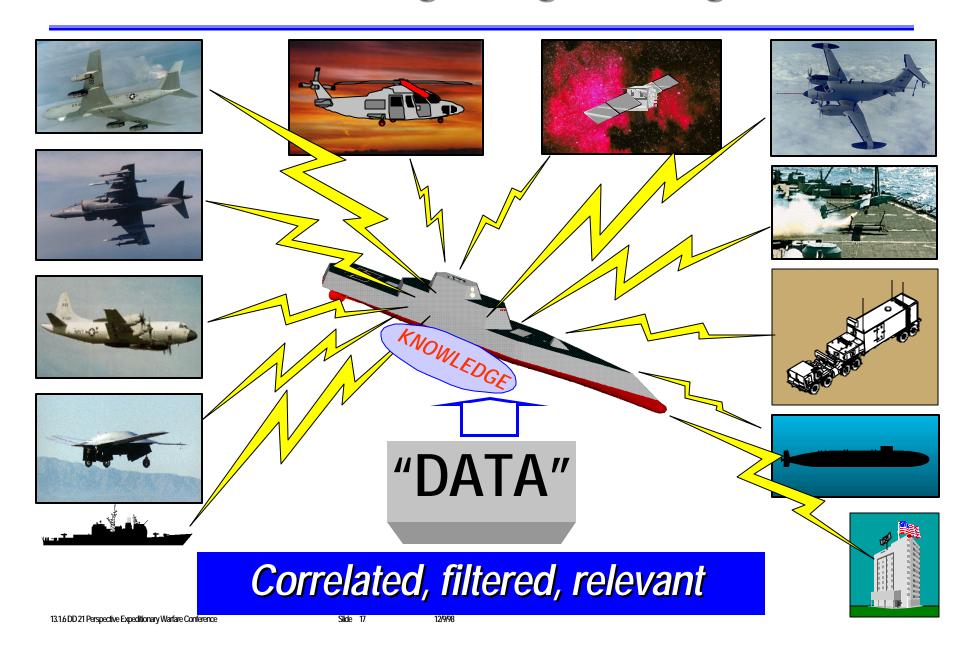


Interoperability within tactical theater assets improves timeliness and accuracy of the tactical picture and....

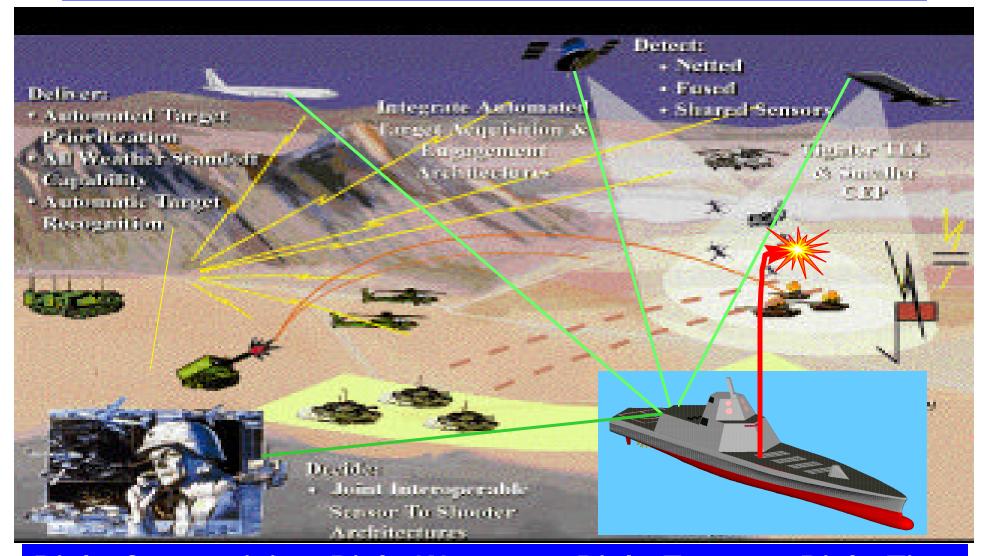
## Dominant Battle Space Awareness and Targeting



#### Knowledge Engineering



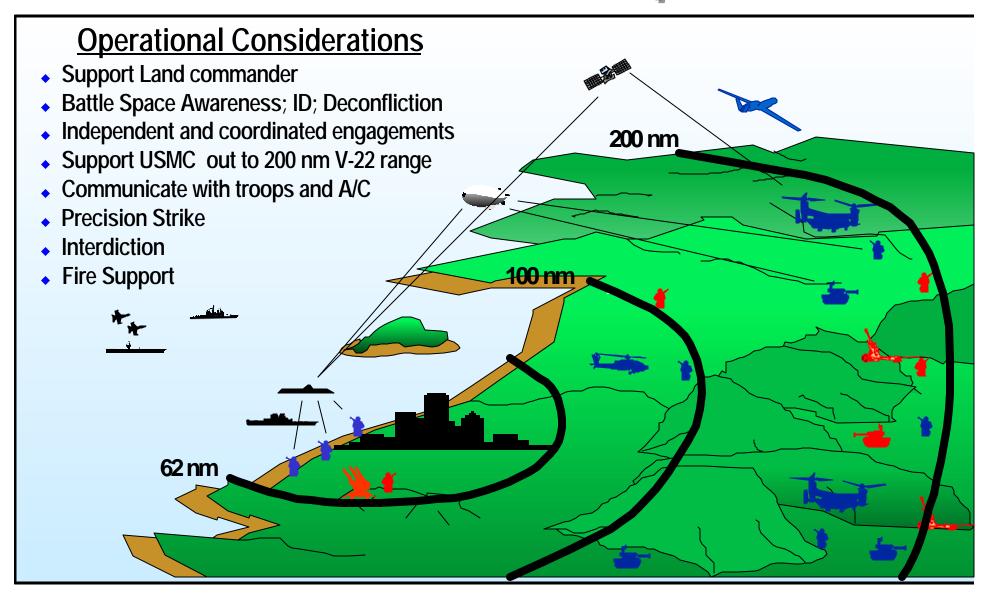
## **DD 21 for Expeditionary Warfare**



Right Connectivity...Right Weapon... Right Target ....Right Time

# Backup

#### DD 21 Land Attack Imperatives



## Information Superiority Metrics

#### Quantity

- Numbers of threats or targets in a specified period
- Size of coverage area

#### Quality

- What degree of geo-location accuracy is required?
- What degree of spatial accuracy is required?
- What degree of spectral accuracy is required

#### Timelines s

- How quickly must a target by located and identified?
- How quickly must information be provided for effective action?
- How often must be updated once initial information is provided?
- Assuredness: under what conditions must information be acquired? (e.g. Time of day, weather, jamming)
- Robustness: what kind of failure rate can be tolerated?
- Flexibility and scalability
  - Time required to shift target or threat area.
  - Area of weapon dispersion
  - Variation in rate of anticipated operations, e.g. surge capacity